

R E M A R K S

At the outset, Applicants would like to thank Examiner Sisson for his time and consideration of the present application at the interview of March 26, 2002 with the undersigned Agent.

At the interview, the contentions of the outstanding Official Action of December 6, 2001 were discussed.

Claims 10, 12-21, 27, 28 and 32-35 have been cancelled. New claims 36 and 52 have been added. New claims 36-52 are supported by previously pending claims 10, 12-21, 27, 28 and 32-35, and generally throughout the specification.

Support for claim 36 may be found in original claim 10. Support for new claims 37-46 can be found in original claims 12-21, respectively. Claims 47 and 48 are supported by original claims 27 and 28, and support for new claims 49-52 may be found in original claims 32-35. Claims 36-52 have been amended to more particularly point out and distinctly claim the subject matter of the present invention. In light of the present amendment, declaration and remarks herein, it is respectfully submitted that new claims 36-52 have been drafted in a manner that obviates the contentions set forth in the outstanding Official Action of December 6, 2001. It is respectfully submitted that no new matter has been added to the present application.

In the outstanding Official Action, Claims 19 and 28 were objected to under 37 C.F.R. § 1.75(c) as allegedly being of improper dependent form for failing to further limit the subject

matter of the previous claim. While claims 19 and 28 have been canceled, the subject matter of claims 19 and 28 is now reflected in new claims 44 and 48 respectively. It is respectfully submitted that new claims 44 and 48 have been drafted in proper dependent claim form.

For example, the outstanding Official Action alleged that claim 28 broadened the scope of claim 27. The outstanding Official Action stated that claim 27 was directed to a "process for detecting and quantifying...". The Official Action alleged that claim 28 broadened the scope of independent claim 27 by stating that the claim was directed to "possibly quantify interactions". It is respectfully submitted this objection has been obviated as claims 36 - 52 are directed for detecting and/or quantifying non-covalent interactions. The support for this recitation is found throughout the specification. In addition, the present specification discusses detecting the fluorescence of a cell without conducting the additional step of quantification (page 3, lines 25-30). Furthermore, the present specification provides that the steps of detection in quantification may be completed together (page 5, lines 1-20).

The outstanding Official Action rejected claims 10-21, 27, 28 and 32-35 under 35 U.S.C. § 112, first paragraph, as allegedly not complying with the written description requirement. This rejection is respectfully traversed.

As the Examiner is aware, an Applicant's disclosure need only reasonably convey to the skill artisan that as of the filing date of the application relied upon, the Applicant had possession of the subject matter claimed. *Vas-cath, Inc. vs. Mahurkar*, 935 F2d 1555, 19 USPQ 2d 111, (CAFC 1991). It is respectfully submitted that the present specification clearly conveys to the skilled artisan that at the time the application was filed, Applicants had possession of the claimed invention. The Official Action contends that the present specification does not provide an adequate written description of the species encompassed by the generic claims. However, it is respectfully submitted that the current version of the U.S. Patent and Trademark Office written description of guidelines for inventions in the biochemical arts does not require that Applicant's have actually reduced to practice all embodiments within the scope of a given claim.

It is respectfully submitted that the present specification discloses several species to support the generic claim. Furthermore, it is noted that the claimed invention is directed to fluorescent proteins obtained or derived from autofluorescent proteins of cnidarians. The claimed invention also is directed to proteins which conserve the fluorescent property of these proteins and recite certain fluorescent properties. Thus, it is respectfully submitted that not any and

all variants or fragments of fluorescent proteins are claimed in the present application.

In support of the written description rejection, page 4 of the Official Action sets forth the lengthy quotation from *In re Shokal* case. In fact, the Official Action underlines that portion of the case which provides that a small genus such as halogens, consisting of four species, a reduction of practice of three, or perhaps even two, might serve to complete the generic invention, while in the case of a genus comprising hundreds of species, a considerably larger number species for the reduction to practice would probably be necessary. However, it is respectfully submitted that the Official Action neglects the previous statement set forth in the quotations.

The court in *re Shokal*, 113 USPQ 283 (ECDA 1957) clearly stated that the written description requirement does not depend on a fix or definite number of species to establish the completion of a generic invention. In fact, the court provided that it seems evident therefrom that such a number will vary depending on the circumstances of each case. Thus, while the Official Action notes that the present specification only describes several species, it is respectfully submitted that the Official Action fails to consider the additional recitations directed to the properties of the fluorescent proteins as noted above.

It is respectfully submitted that it would be inappropriate to solely rely upon the number of species disclosed in the present application. In view of the claimed invention and the present specification, it is respectfully submitted that new claims 36-52 clearly contain subject matter which was described in the specification in such a way as to reasonably convey to one skilled in the art that the time the application was filed that Applicants had possession of the claimed invention.

Claims 10-21, 27, 28, and 32-35 were rejected under 35 U.S.C. § 112, first paragraph, as allegedly being based on non-enabling disclosure. This rejection is respectfully traversed.

As the Examiner is aware, the test of enablement is not whether any experimentation is necessary, but whether, the experimentation is necessary, it is undue in re Angstadt, 537 STD 498, 504, 190 USPQ 214, 219 (CCPA 1976). In fact, a disclosure is enabling, even if a considerable amount of experimentation is involved if it is merely routine and not unduly extensive *Ex Parte Formal et al.*, 230 USPQ 546 (BPAI 1986). It is respectfully submitted that it would not be an undue burden for one of ordinary skill in the art to practice the present invention commenced in scope with the claims. As noted above, the claimed invention is directed to a fluorescent protein conserving certain fluorescent properties. One of ordinary skill in the art would clearly be able to practice the present invention when considering the present specification and

properties set forth in the claimed invention. Although it is respectfully submitted that a considerable amount of experimentation is not needed, any experimentation that would have to be done certainly would be routine.

As evidence that the claimed invention satisfies the written description requirement and is fully enabled, the Examiner's attention is respectfully directed to the Declaration by Dr. Galzi. The Declaration by Dr. Galzi provides that the present specification and claimed invention contain subject matter which was described in the specification in such a way to reasonably convey one skilled in the art that the inventor, at the time the application was filed, had possession of the claimed invention. Furthermore, the declaration provides that the claimed invention is fully enabled to one of ordinary skill in the art.

At pages 6-9 of the Official Action, the claims previously in the case were also rejected as being indefinite. Many of the bases for the indefinite rejection were considered to be well taken, and the Examiner will observe in claims 36 to 52 as presented, that those bases for indefiniteness have been addressed and corrected. Favorable reconsideration and withdrawal of that rejection is therefore respectfully requested.

In view of the present Amendment and foregoing remarks, therefore, it is believed that this application has been placed

GALZI et al. S.N. 09/445,205

in condition for allowance, as amended. Allowance and passage to issue on that basis are accordingly respectfully requested.

Respectfully submitted,

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